CLAIMS

1. An immunomodulator which comprises an antigen-presenting-cell (APC) targeting molecule coupled to an immunomodulatory antigen, wherein said APC targeting molecule mimics the superantigen SMEZ-2 but does not include a fully functional T-cell receptor binding site.
2. An immunomodulator which comprises an antigen-presenting cell (APC) targeting molecule coupled to an immunomodulatory antigen, wherein said APC targeting molecule is a molecule which is structurally a SMEZ-2 superantigen but for a disrupted T-cell receptor binding site such that the molecule has little or no ability to activate T-cells.
3. An immunomodulator which comprises SMEZ-2 having one or more mutations at positions 18, 42, 75 and 182 of the amino acid sequence of SEQ ID:1 coupled to an immunomodulatory antigen.
4. An immunomodulator as claimed in claim 3 wherein SMEZ-2 has one or more mutations chosen from the group consisting of:
   Y18A;
   W75L;
   K182Q; and
   D42C.
5. An immunomodulator which comprises SMEZ-2 having the mutations Y18A, W75L, K182Q, and D42C, coupled to an immunomodulatory antigen.
6. An immunomodulator which comprises SMEZ-2 having the mutations W75L, K182Q, and D42C, coupled to an immunomodulatory antigen.
7. An immunomodulator which comprises a defective TcR binding SMEZ-2 coupled to ovalbumin.
8. An immunomodulator which comprises a defective TcR binding SMEZ-2 coupled to tetanus toxoid (TT) or a peptide thereof.
9. An immunomodulator which comprises a defective TcR binding SMEZ-2 coupled to LCMV peptide.

10. An immunomodulator as claimed in any one of claims 1 to 9 wherein the coupling between the antigen-presenting- cell (APC) targeting molecule and the immunomodulatory antigen is reversible.

11. An immunomodulator as claimed in any one of claims 1 to 10 wherein the immunomodulatory antigen is a protein or a peptide.

12. A pharmaceutical composition comprising an immunomodulator according to any one of claims 1 to 11 and one or more pharmaceutically acceptable carriers, adjuvants, excipients and/or solvents.

13. A vaccine comprising an immunomodulator according to according to any one of claims 1 to 11.

14. A method of therapeutic or prophylactic treatment of a disorder which requires the induction or stimulation of the immune system, comprising the administration to a subject requiring such treatment of an immunomodulator or of a pharmaceutical composition according to any one of claims 1 to 13.

15. A method as claimed in claim 14 wherein the disorder is selected from the group consisting of bacterial, viral, fungal or parasitic infection, autoimmunity, allergy and/or pre-neoplastic or neoplastic transformation.

16. Use of an immunomodulator according to any one of claims 1 to 13 in the preparation of a medicament for the therapeutic or prophylactic treatment of a disorder which requires the induction or stimulation of the immune system.

17. A method of preparing an immunomodulator of any one of claims 1 to 13 comprising the steps of:

a introducing a modification and/or a deletion into the T-cell binding site of an antigen-presenting cell (APC) targeting molecule which is structurally a SMEZ-2 superantigen, and

b coupling thereto an immunomodulatory antigen.

18. An immunomodulator prepared in accordance with a method of claim 17.

19. A superantigen having the SEQ ID No:1 but for one or more mutations present at positions 18, 42, 75 and 182.

20. A superantigen as claimed in claim 19 wherein the mutations are chosen from the group consisting of:
Y18A;
W75L;
K182Q; and
D42C.

21. A superantigen SMEZ-2 having the amino acid sequence of SEQ ID NO:2.

22. A superantigen SMEZ-2 having the amino acid sequence of SEQ ID NO:3.

23. A nucleic acid encoding any one of the superantigens of claims 18 to 22.

24. A nucleic acid construct comprising at least a nucleic acid encoding any one of the superantigens of claims 18 to 22.